

AMENDMENTS TO THE CLAIMS

1. - 55. Cancelled.

56. (New) A method of detecting resistance or sensitivity in a fungal phytopathogen to a fungicide selected from the group consisting of a strobilurin analogue, kresoxim-methyl, famoxadone and fenamidone, wherein resistance to said fungicide is caused by a single nucleotide mutation in the cytochrome *b* gene of said fungal phytopathogen, said single nucleotide mutation resulting in the amino acid substitution G₁₄₃A wherein the number specifies the position of the first specified amino acid in the wild-type *Saccharomyces cerevisiae* cytochrome *b* sequence and wherein the first specified amino acid is substituted by the second specified amino acid at the position in the fungal cytochrome *b* gene which when aligned with the *S. cerevisiae* cytochrome *b* sequence corresponds to the *S. cerevisiae* amino acid specified, the method comprising identifying the presence of said single nucleotide mutation by carrying out a PCR on a test sample comprising phytopathogenic fungal nucleic acid using a pair of primers specific for the cytochrome *b* gene of said fungal phytopathogen and, either

- (i) generating an amplicon and probing said amplicon with an oligonucleotide probe that is specific for said single nucleotide mutation, such that binding of the oligonucleotide probe to said amplicon is indicative of the presence of said mutation,

or;

- (ii) generating and detecting the presence of an amplicon, wherein when one of said primers is specific for the single nucleotide mutation the presence of said amplicon is indicative of the presence of the mutation and wherein when one of said primers is specific for the non-mutant cytochrome *b* gene the presence of said amplicon is indicative of the absence of the mutation;

wherein the presence of said mutation correlates with resistance and the absence of said mutation correlates with sensitivity of said fungal phytopathogen to said fungicide.

57. (New) A method according to claim 56 wherein said strobilurin analogue is azoxystrobin, picoxystrobin, or trifloxystrobin.

58. (New) A method according to claim 56 wherein said mutation occurs in the second base of triplet encoding said specified amino acid.

59. (New) A method according to claim 56 wherein said mutation is caused by the presence of a cytosine nucleotide in the second base of the triplet encoding the specified amino acid.
60. (New) A method according to claim 56 wherein the fungal phytopathogen is selected from the group consisting of: *Plasmopara viticola*, *Erysiphe graminis f.sp. tritici/hordei*, *Rhynchosporium secalis*, *Pyrenophora teres*, *Mycosphaerella graminicola*, *Venturia inaequalis*, *Mycosphaerella fijiensis* var. *difformis*, *Sphaerotheca fuliginea*, *Uncinula necator*, *Colletotrichum graminicola*, *Pythium aphanidermatum*, *Colletotrichum gloeosporioides*, *Oidium lycopersicum*, *Magnaporthe grisea*, *Phytophthora infestans*, *Leveillula taurica*, *Pseudoperonospora cubensis*, *Alternaria solani*, *Rhizoctonia solani*, *Mycosphaerella musicola* and *Cercospora arachidola*.